

# Vatsa Patel

Software Engineer | Masters in CS student

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 /VatsaPatel

## Experience

### 3D RoomSpace | Software Engineering Intern

Los Angeles, CA • May 2020 - Aug 2020

- Developed the core services for the rental platform to automate leasing and easily secure medium-term rentals.
- Rearchitected and migrated backend to a scalable Kubernetes environment.

**Tech Stack:** GCP Cloud run, Kubernetes Engine | Node, GraphQL | React Native, React, Gatsby

### Freelance Contractor

San Francisco, CA • May 2020 - Present

- **UniversityEats:** Building service using Plaid to automatically analyze spendings from all linked banks and provide insights.
- **PodSource, SF:** Helped move to a scalable serverless architecture reducing monthly bills by 72%.
- Built a tool to automatically tag and push docker images to multiple Container Registries with multiple login management integrating with their internal system.

### A D Patel Institute of Technology | Software Engineer

#### Learning Management Platform

Aug 2017 - Sept 2018

- Designed & developed a platform that automates and solves existing paper-based problems of Class Scheduling, Information sharing, Evaluations, Asset Management in which lead & mentored team of 5 engineers.
- Engineered highly-available backend services that are deployed through an in-house private cloud cluster through OpenStack with auto-scaling.
- Designed UI/UX interface designs that got featured on Dribbble. [bit.ly/2TMfOnO](https://bit.ly/2TMfOnO)

**Tech Stack:** React, React Native, Electron | NodeJS, Golang | MemSQL, HBase, Aerospike.

#### ADIT Alumni Hub

Aug 2016 - Mar 2018

- Designed & Developed a social platform from scratch to allow Alumni to reconnect with each other, discover other alumni in same region and profession, share jobs & events. Attained 6,400 users within first 3 months.

**Tech Stack:** React, JQuery | PHP, NodeJS | MySQL, Memcached

### Smarq Technologies

Nov 2015 - May 2016

- Ideated a startup at Qualcomm incubator which was selected in the top-10 startup ideas out of thousands of applicants.
- Smarq: tightly-knit ecosystem of smart sensors capable of automation sequences based on local location of user.

### Purva Couture | Software Developer

Aug 2015 - Dec 2015

- Single-handedly developed a Business Operations system that managed from Sales to Production to Deliveries handling 700+ clients & revenue of \$1M+.

## Projects

### SlackHR

Feb 2020 - May 2020

- Developed a Slack plugin application that helps combat abusive conduct at a workplace backed by a Multi-Label classifier using Neural Net.

### Reverse proxy to increase downlink bandwidth

Aug 2019 - Sep 2019

- Developing a reverse proxy that substantially minimizes the effect of Bandwidth Delay Product on TCP Throughput by buffering the file on multiple connections.
- Preliminarily achieved 8x improvement in streaming on intercontinental bandwidth with BBR congestion control.

### Federated Learning - Privacy Enhanced Collaborative Machine Learning

Jan 2019 - Aug 2019

- Optimized Federated Averaging Algorithm optimized for Large-Scale LSTM-CNN when the input consists of large number of small-sized updates in Homomorphic Encryption.
- Submitted and got invited to present my research paper in IEEE.

## Skills

**Backend:** NodeJS, PHP, Python, Java, C++    **Database:** SQL : MySQL, Postgres | NoSQL : MongoDB, Redis, DynamoDB

**DevOps:** AWS, GCP, Docker, Kubernetes, CI/CD.    **Frontend:** JavaScript:React, React-Native, Android, HTML/CSS

## Education

### San José State University

Jan 2020 - Dec 2021 Expected

Candidate for Masters in Computer Science

Dual Specialization: Networking Software & Enterprise Software Technologies

### Gujarat Technological University

Jul 2015 - Jul 2019

Bachelor of Engineering in Computer Science